



# Prairie Island Independent Spent Fuel Storage Installation License Renewal Pre-Submittal Meeting



**Rockville, Maryland**  
**March 17, 2011**

## Xcel Energy Attendees

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- **Lee Samson – Spent Nuclear Fuel Projects Manager**
- **Lynne Gunderson – Projects Licensing Manager**
- **Oley Nelson – Spent Nuclear Fuel Project Engineer**
- **Jennie Eckholt – Licensing Engineer**
- **Bill Roman – Project Engineer**

# Agenda

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- **Purpose**
- **Prairie Island Nuclear Generating Plant (PINGP) Independent Spent Fuel Storage Installation (ISFSI) Background**
- **Licensing Approach for Submittal**
- **Scope of License Renewal Submittal**
- **Schedule**
- **Summary**
- **Feedback / Discussion**

## Purpose

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- **Discuss ISFSI License Renewal Application (LRA) licensing approach and schedule**
- **Obtain NRC feedback**

# PINGP ISFSI Background

## Site Background



# PINGP ISFSI Background

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## License Background

- **Original Site Specific License issued October 1993**
  - ◆ 20-year license expires October 31, 2013
  - ◆ TN-40 Cask Design
- **Amendment for TN-40HT cask design issued in August 2010**

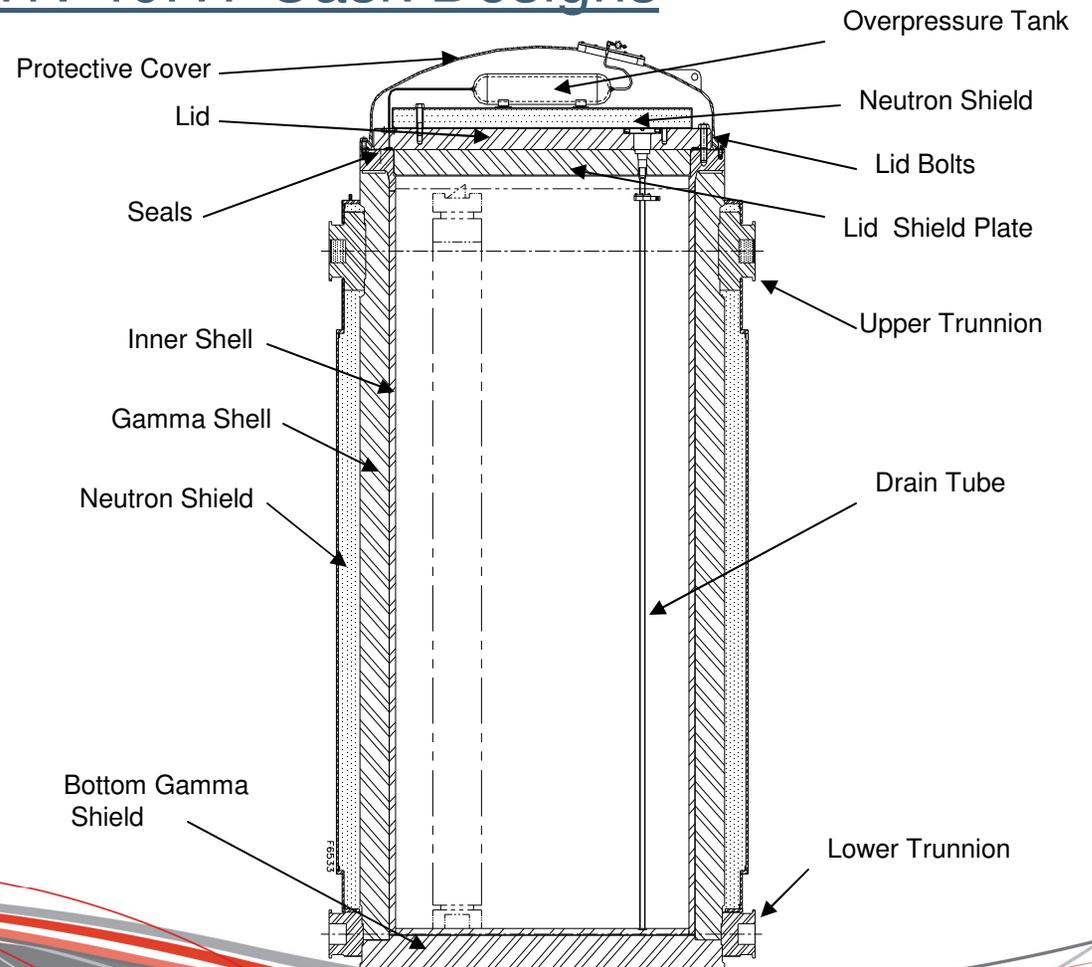
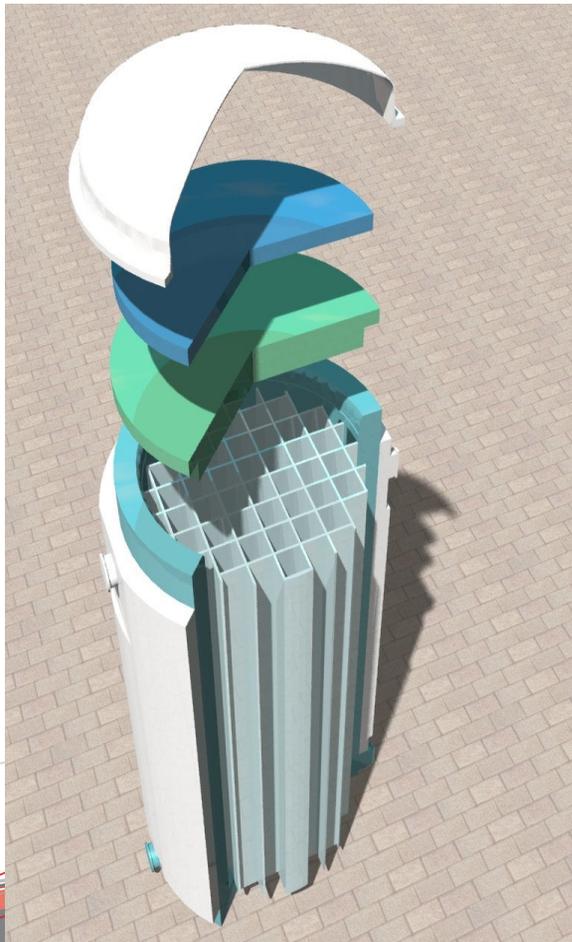
# Licensing Approach for Submittal

## Regulations and Guidance

- **10 CFR 72.42**
  - ◆ **Renewal term of 40 years**
  - ◆ **Time Limiting Aging Analyses (TLAA)**
  - ◆ **Aging Management Program (AMP)**
  - ◆ **Design Basis**
- **Draft NUREG-1927**
- **Recent industry applications and Requests for Additional Information (RAIs)**

# Scope of License Renewal Submittal

## TN-40 and TN-40HT Cask Designs



# Scope of License Renewal Submittal

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## Inspections

- **Draft NUREG-1927**
- **Routine inspections**
  - ◆ **Outer cask surfaces**
  - ◆ **Concrete pads**
  - ◆ **Earthen berm**
- **Additional inspections scheduled summer of 2011**
  - ◆ **Longest cask in service**
    - **Under protective cover**
    - **Bottom of cask**

# Scope of License Renewal Submittal

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## Scoping

- **PI ISFSI Licensing Basis contains 2 Quality Assurance classifications**
  - ◆ **Safety-Related (SR)**
  - ◆ **Important to Safety (ITS)**
- **Scoping Criteria**
  - ◆ **Criterion 1: ITS or SR**
  - ◆ **Criterion 2: non-ITS or non-SR but failure would impact fulfillment of safety function**

# Scope of License Renewal Submittal

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## Screening

- **Identify the intended functions of subcomponents of in-scope structures, systems, and components**
  - ◆ **Criticality control of the spent fuel (CC)**
  - ◆ **Heat transfer (HT)**
  - ◆ **Maintaining a pressure boundary (PB)**
  - ◆ **Radiation shielding (SH)**
  - ◆ **Structural support, functional support, or both (SS)**
- **Scoping and Screening results in Section 2 of LRA per draft NUREG-1927**

# Scope of License Renewal Submittal

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## Aging Management Review (AMR)

### ■ AMR Process

- ◆ Identify structure or component material and environment
- ◆ Determine if component is subject to an aging effect
- ◆ Identify aging effects requiring management via
  - TLAA
  - AMP

# Scope of License Renewal Submittal

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## Managing Aging Effects

### ■ TLAAAs

- ◆ Six attributes per draft NUREG-1927
- ◆ Disposition TLAAAs per draft NUREG-1927

### ■ AMP

- ◆ Per draft NUREG-1927
- ◆ Credit existing PINGP programs and activities

# Scope of License Renewal Submittal

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## Supplemental Environmental Report

- **Scope and Content**
  - ◆ **Benchmark recent industry ISFSI LRAs and RAIs**
  - ◆ **Includes supplemental analyses of items considered in the PINGP ISFSI original Environmental Report**
- **Recent PINGP/Environmental work**
  - ◆ **PINGP plant License Renewal Application**
  - ◆ **State of Minnesota Certificate of Need (Docket No 08-510) for increased storage at PINGP ISFSI**

## Schedule

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- **Submittal is scheduled for October 2011**
- **NRC Review schedule?**

## Conclusions

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### Prairie Island ISFSI LRA:

- **Follow guidance of draft NUREG-1927**
- **No unique issues with Scoping, Screening or AMR**
- **Schedule for submittal is October 2011**



# Discussion

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Questions ?

